

**REMARKS/ARGUMENTS**

Claims 1 – 9 are presented for reconsideration and further examination in view of the foregoing amendments and following remarks.

In the outstanding Office Action, the Examiner objected to claim 3 due to an informality; rejected claims 1 and 5 – 9 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,015,332 to Manne (hereinafter referred to as “the Manne ‘332 patent”); and rejected claims 2 – 4 under 35 U.S.C. §103(a) as being unpatentable over the Manne ‘332 patent in view of U.S. Patent No. 6,186,790 to Karmaker et al. (hereinafter referred to as “the Karmaker et al. ‘790 patent”).

By this Response and Amendment,

claim 3 has been amended to correct an informality; and

claim 1 has been amended to recite “[a] dental crown... being configured as a continuous structure of a natural appearance of a vital tooth;” and as amended, the rejections to claim 1 and the rejections to the claims dependent thereon are traversed.

Support for the amendment to claim 1 can be found on page 3, line 26 of the originally filed application. Therefore, it is respectfully submitted that the above amendments do not introduce any new matter, within the meaning of 35 U.S.C. §132, to this application.

**Claim Objections**

The Examiner objected to claim 3 for lacking insufficient antecedent basis for the phrase “thermoplastic polymer.”

**Response**

By this Response and Amendment, claim 3 has been amended to recite “said polymer is a homo- or co-polymer...,” thereby differentiating between a “polymer,” as initially recited in

claim 2, and a “thermoplastic polymer,” as initially recited in claim 1.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the objection to claim 3.

### **Rejection Under 35 U.S.C. §102(b)**

The Examiner rejected claims 1 and 5 – 9 as being anticipated by the Manne ‘332 patent.

### **Response**

By this Response and Amendment, independent claim 1 has been amended and, as amended, the rejections thereto are traversed since all of the features of amended independent claim 1 are not present in the cited prior art.

For a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131.

Amended independent claim 1 recites: “[a] dental crown formed of a thermoplastic polymer material, said crown being configured as a continuous structure of a natural appearance of a vital tooth and comprising a tooth shaped top surface and depending flexible side surfaces, at least a part of the depending side surfaces having an inwardly directed bottom portion.”

The Manne ‘332 patent discloses a dental crown configured to enable the crown to adjust to variable teeth dimensions. This is implemented by configuring the crown to include a hinge structure (see *the Manne ‘332 patent* at col. 2, lines 28 – 30); the hinge structure has **discontinuities**, namely **splits**, in specific positions of the crown’s sidewalls.

Contrastingly, the crown of the presently claimed invention is made of a thermoplastic polymer material and is configured as “a continuous structure of a natural appearance of a vital tooth” as recited in amended independent claim 1. The crown disclosed in the Manne ‘332 patent does not have the “natural appearance of a vital tooth.” Splits 28 of the hinge structure of the Manne ‘332 patent’s crown makes it impossible for the disclosed crown to have the natural appearance of a vital tooth because a natural vital tooth simply does not have “splits” or “discontinuities.” Thus, for at least the reason that Manne ‘332 patent does not disclose a crown having a “natural appearance of a vital tooth” as recited in amended independent claim 1 of the present application, the presently claimed invention is patentable over the cited prior art.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection under 35 U.S.C. §102(b).

#### **Rejection Under 35 U.S.C. §103(a)**

The Examiner rejected claims 2 – 4 under 35 U.S.C. §103(a) as being unpatentable over the Manne ‘332 patent in view of the Karmaker et al. ‘790 patent.

#### **Response**

The arguments above with respect to the Manne ‘332 patent are hereby incorporated by reference.

By this Response and Amendment, independent claim 1 has been amended and, as amended, Applicant respectfully traverses the Examiner’s rejection as all of the features of amended independent claim 1 are neither disclosed, taught, nor suggested by the cited prior art.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success;

and (3) the prior art references teach or suggest all of the claim limitations. *Amgen, Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

The Karmaker et al. '790 patent does not cure the deficiencies of the Manne '332 patent. The Karmaker et al. '790 patent discloses structural components for dental appliances that are comprised of a polymeric matrix. The Karmaker et al. '790 patent discloses that uses for the structural components include crowns. In contrast to the presently claimed invention, however, the Karmaker et al. '790 patent does not disclose, teach or suggest a "crown being configured as a continuous structure of a natural appearance of a vital tooth" as recited in independent claim 1. The Karmaker et al. '790 patent is completely silent as to whether the disclosed components have a "continuous structure of a natural appearance of a vital tooth" as recited in independent claim 1 of the present application. As this feature is not disclosed, taught or suggested by the Manne et al. '332 patent or the Karmaker et al. 790 patent, neither the Manne et al. '332 patent nor the Karmaker et al. '790 patent, alone or in combination, renders the presently claimed invention obvious.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the outstanding rejections.

### CONCLUSION

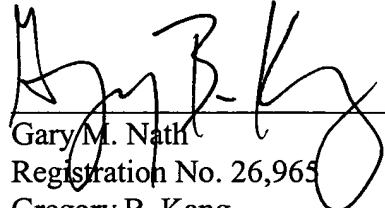
In light of the foregoing, Applicant submits that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicant respectfully requests that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, Applicant petitions for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,  
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